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GROWTH TO HEALTHY PERFECTIONISM: AN INVESTIGATION OF PERFECTIONIST
TENDENCIES WITH GIFTED AND TALENTED ADOLESCENTS

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GROWTH TO HEALTHY PERFECTIONISM: AN INVESTIGATION OF PERFECTIONIST
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Abstract

The present study includes the creation, implementation, and results of an eight-session, school-based, primary-prevention program designed for gifted and talented middle school students. The unit, “Growth to Healthy Perfectionism” is designed to address each of the six dimensions of perfectionism according to Dr. Randy Frost(1990), which include Parental Expectations (PE), Parental Concern (PC), Personal Standards (PS), Doubts About Actions (DA), Concern Over Mistakes (CM), and Organization (O) with the intent of decreasing unhealthy perfectionism and increasing healthy perfectionism in students.

The study was conducted with seventh and eighth grade students from a middle school located in the Southeastern United States. Prior to beginning the unit, participants rated themselves in each of the six dispositions using the Goals and Work Habits Survey created by Patricia Schuler (1999). Each lesson in the unit includes an introduction to the disposition, a hands-on activity designed to equip participants with strategies to decrease negative thoughts that are thought to be associated with adverse perfectionistic tendencies, and challenges each participant to reflect on how they can implement these strategies in their daily lives to decrease unhealthy perfectionism and increase healthy perfectionism. At the conclusion of the unit, students once again completed the Goals and Works Habits Survey and reflected on how their view of perfectionism has changed after participating in Growth to Healthy Perfectionism.

Throughout the paper, the six dimensions of perfectionism are discussed in detail, along with the three types of perfectionists: (1) non-perfectionist, (2) healthy perfectionist, and (3) unhealthy perfectionist.

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Introduction

There are numerous myths surrounding the outward perception of gifted students by teachers, parents, and administrators; one of the most common being, “gifted students don’t need any help, they’ll be fine on their own.” (National Association for Gifted Children, n.d., *Myths About Gifted Students*). This myth traditionally refers to the lack of academic enrichment gifted students often fail to receive in the classroom, but the myth also holds a popular false truth that gifted and talented students are “doing just fine” socially and emotionally. This could not be farther from the truth as Janos and Robinson state in *Psychosocial development in intellectually gifted children* that 20-25% of gifted children experience social and/or emotional difficulties at a rate about twice that of nongifted students (1985). According to clinical observations performed by Emily Mofield and Megan Parker Peters, the most prevalent social/emotional difficulties gifted adolescents face are sensitivity, perfectionism, and unhealthy introversion (2015). In a comprehensive social/emotional study of rural, gifted middle school students conducted by Patricia Schuler, it was concluded that 87.5% of the students participating in the study were identified as possessing perfectionistic tendencies (1999). Leta Stetter Hollingworth, an early champion of gifted advocacy, identified perfectionism as a common emotional trait of gifted adolescents as early as the 1920’s (1926). Since then, there has been limited research on the social/emotional effects of unhealthy perfectionistic tendencies of gifted students, but the majority of existing studies commonly believe perfectionistic tendencies in gifted and talented children hinder psychosocial adjustment (Dixon, Lapsley, & Hanchon, 2004). Adderholdt-Elliott suggested gifted students experience an increased vulnerability to perfectionistic tendencies because they

are often influenced by perfectionistic parents, high personal standards, and pressure from teachers and peers to succeed, whether the pressure is real or perceived (1991).

Many gifted children will experience pressure to succeed perfectly in every aspect of their lives, even if they are only gifted in certain areas (Freeman, 2018). Another commonly believed myth about gifted students is that just because a student is gifted in one area, they are automatically gifted in all areas (National Association for Gifted Children, n.d.). Many gifted students experience asynchronous development, which is the conflicting development of their intellect, body, age, social skills, and ability to understand and cope with emotions (Silverman, 2007). Asynchronous development may help explain why some gifted students succeed academically but lag behind socially, or why some gifted students might shine in leadership and communication skills but struggle in math. The Columbus Group directly links asynchronous development and giftedness together, explicitly stating, “giftedness is asynchronous development” (Institute for the Study of Advanced Development, 1991). A large percentage of gifted students experience this “out of order” development, and as gifted students enter their adolescent years they begin to notice they are developing differently and at a different rate than their peers, which can lead to a great deal of inner turmoil as they realize that not only do they think differently than their peers, but they also feel differently from their peers (Sword 2001). This inner turmoil can manifest in several different ways including existential depression (Webb, 1998), role conflict (Johnson, 1992; Kerr, 1994), alienation and social pressures (Robinson, 2002; Roedel, 1984), intense sensitivities (Silverman, 1993), questions of identity formation (Sanborn, 1979), coping with unrealistic expectations of themselves and others (Lind, 1998), and struggling with perfectionism (Parker & Mills, 1996).

Gifted students may become increasingly frustrated with external and internal perfectionist expectations to succeed in all aspects of their lives. If a gifted child fails to perform to the standards expected of them internally or externally, then they may experience feelings of depression, anxiety, failure, guilt, indecisiveness, procrastination, shame, low self-esteem, or intense feelings of “I should have” (Hewitt & Flett, 1991). Some gifted students react to overwhelming expectations in an internal manner by suppressing any of the previously listed negative feelings they may experience while under great stress to perform highly. These students will appear to “have it all together,” but in reality they are ready to drop with fatigue from constantly performing at such high levels to meet internal or external perfectionistic expectations (Delisle & Galbraith, 2002). These students may turn to face-saving behavior to keep up a facade; therefore contributing to the outward perception that they are “doing just fine” to maintain the expected high-achieving performance (Schuler, 1999). It is in this form that perfectionism may take its greatest toll as these students silently suffer from possibly the worst type of perfectionism in an effort to continually show that they can meet or exceed high standards and expectations.

The Six Dimensions of Perfectionism

Over the years, multiple researchers have developed different ways of measuring perfectionism and identifying types of perfectionists. Dr. Randy Frost developed the Multidimensional Perfectionism Scale (MPS), which identifies the six main dimensions of perfectionism: (1) Concern Over Mistakes (CM), (2) Personal Standards (PS), (3) Parental Criticism (PC), (4) Doubts About Actions (DA), (5) Parental Expectations (PE), and (6)

Organization (O; Mofield & Parker Peters, 2015). Each dimension refers to one's internal or external perception of themselves and how others view them.

Concern Over Mistakes

Concern over Mistakes refers to one's belief that mistakes equal failure and one's general negative reactions to failure. Many gifted and talented students initially resist the fact that mistakes are an opportunity for growth and fail to understand that learning occurs through growth. This may be attributed to the commonality that many gifted students are used to picking up concepts in the classroom almost immediately and become downtrodden, discouraged, and embarrassed when they make a mistake because they "should have known better" (Schuler, 1999). This can result in increased concern over mistakes as gifted students may want to prove that they "already know everything" in order to appear perfect. Gifted students that struggle with Concern Over Mistakes may tend to fret over the past, because they have difficulty letting go of past mistakes instead of focusing on future endeavors and personal growth (Elliott & Meltsner, 1991; Freeman & DeWolf, 1989).

Personal Standards

Personal Standards is equated with one's high expectations of self at all times. One item on the MPS asks students to go as far as to answer the question, "If I do not set the highest expectations for myself, I am likely to end up a second rate person" (Schuler, 1999). Gifted students may be accustomed to being the highest performer in their class, family, or extracurriculars. These students may feel as if being number one is the "norm" and stop accepting anything less of themselves, therefore setting themselves up to constantly reach unattainable high personal standards of perfection. Some gifted students may directly correlate

their achievement to their self-esteem, which can quickly become detrimental to one's mental health and result in a "roller coaster" lifestyle that may be characterized by periods of self-loathing or pride depending on the discrepancy or success between ideal self aspirations and real self behavior (Adderholdt-Elliott, 1987; Schuler, 1999).

Parental Criticism

Parental Criticism deals with the type of pressure and feedback gifted students may receive from their parents. Due to the potential of an exceptionally bright child, some parents may push their child to the limits, all with good intentions, but with an ignorance of the social and emotional effects this can have on their gifted child. Many children, gifted or not, have an innate desire to please their parents, so children will oftentimes work for the praise of their parents (Damien et al., 2013). When parents are harsh to judge a gifted child's work or actions it can severely hinder their emotional well being, as many gifted children are also overly sensitive. Parents should strive to express unconditional acceptance of their children and create a nurturing environment in which mistakes are not criticized, but accepted and welcomed (DeVries, 2006).

Doubts About Actions

Doubts About Actions can be thought of as the precursor to Concern Over Mistakes. Some gifted students will not take risks socially, intellectually, or in other areas of life because they are afraid of making a mistake or not living up to the expectations they may have of themselves or the expectations of a parent, peer, teacher, or coach. This may result in procrastination for many gifted students because they may want to make their performance or product perfect, but fear they won't be able to (Schuler, 1999). Many gifted students will then

become “stuck” in doubts about actions and never act, therefore completely avoiding any concern over mistakes that could possibly result (Schuler, 1999).

Parental Expectations

Parental Expectations can weigh heavily on a gifted child, especially if the child has unintentionally set a precedent of high performance through academic scores. Some parents may begin to accept nothing less than routine outstanding performance of their gifted child. Gifted students may begin to internalize these unrealistic standards of perfection and begin to believe that anything short of perfection is not good enough. In the most extreme cases, stress and depression may result when a child feels as if they failed to reach a parent’s unreasonable expectations. Parents should strive to set attainable and appropriate expectations in which their gifted child is enriched, rather than pressured in order to help their child reach their fullest potential. Parents of children showing perfectionistic tendencies need to practice patience with their perfectionists and help them determine when it is okay to “let go” of a task or performance. Creating a nurturing environment in which gifted students feel safe to make mistakes in order to grow is possibly one of the most important things a parent can do for their gifted child (DeVries, 2006).

Organization

The last dimension of perfectionism Frost identified is Organization. Some gifted adolescents will turn to organization to avoid feelings of stress and to maintain their own high standards, whether they are striving to organize their schoolwork, personal life, extracurriculars, or maintain a balance between all of the above (Schuler, 1999). In Schuler’s study of gifted adolescents in a rural middle school setting, she observed two prevalent factors affecting the

adolescent's need for organization; their support systems and the personal effort they believed necessary to be successful. This study found a correlation between an increase of positive feedback students received concerning their organizational skills from parents and teachers, and an increase in self-belief that students should continue to have a high need for order and organization in order to attain their personal best (Schuler, 1999). These specific study results reflect a shared ideology regarding the need for order and organization to be successful among a large percentage of gifted students. After further research, it was discovered that organization should not be included in the total perfectionism score because Frost concluded this trait is not a core component of perfectionism (Frost et al., 1990).

Types of Perfectionists

In *An empirical typology of perfectionism in academically talented children*, Parker (1997) indicated cluster scores that describe the three types of perfectionists: (1) non-perfectionist, (2) normal (healthy), and (3) dysfunctional (unhealthy).

Non-Perfectionist

The non perfectionist generally scores low in the following sub categories on the MPS; Organization, Personal Standards, Parental Expectations, and a low combined total for their perfectionism score (Parker, 1997). Few studies in the field report on the characteristics of identified non perfectionist students because most studies aim to analyze the behaviors of healthy perfectionists versus unhealthy perfectionists. In *Voices of Perfectionism: Perfectionistic Gifted Adolescents in a Rural Middle School* Patricia Schuler reports that students identified as non perfectionists indicate low perceived parental expectations and low personal standards, as well as low organization, and an average perception of parental criticism compared to their gifted peers

(Schuler, 1999). In a similar study of perfectionistic tendencies of gifted students conducted by Dixon, Lapsley, and Hanchon, the results support Schuler's claims pertaining to nonperfectionist's personality traits. In Dixon's study, students identified as non perfectionistic appeared to be unorganized, easily distracted, and undisciplined, but appeared very confident in their abilities to complete a task, which led the researchers to refer to them as "self-assured non perfectionists." The majority of non perfectionist students in this study did not set high personal standards or respond negatively to mistakes. These students also reported that their parents did not have high expectations or overly criticize their work and actions (Dixon, et al., 2004).

Healthy Perfectionist

The healthy perfectionists generally score low in the following MPS subscales: Concern Over Mistakes, Doubts about Actions, and Parental Criticism. Healthy perfectionists usually show a higher score in Organization and a moderate overall total score for their perfectionism score (Parker, 1997). Many healthy perfectionists possess a high need for order and organization, enjoy high parental expectations, display self-acceptance of mistakes, possess prevalent role models in their lives that emphasize doing one's "best," demonstrate positive strategies to cope with perfectionistic tendencies, and view personal effort as part of their perfectionism (Schuler, 1999). As a result of these experiences, healthy perfectionists are generally better able to enjoy their work, recognize their limitations on performance, and are motivated to strive for excellence, rather than perfection (Hamachek, 1978). While striving for excellence, healthy perfectionists tend to use criticisms more constructively and as a way to help them work smarter to reach higher standards, rather than becoming defensive, overly anxious, or discouraged when they fall short of a goal (Kottman & Ashby, 2000). These students generally

have a higher understanding that perfectionism exists on a continuum from unhealthy to healthy which may manifest in a range of behaviors from healthy to dysfunctional behaviors (Hamachek, 1978) and these students are generally more skilled in recognizing when their perfectionistic tendencies may be harming them instead of helping them.

Unhealthy Perfectionist

The unhealthy perfectionist generally scores high in the following MPS subscales; Concern over Mistakes, Personal Standards, Parental Expectations, Doubts About Actions, and Parental Concern with a high overall total score for their perfectionism score (Parker, 1997). Unhealthy perfectionism can take a mental toll on gifted students that spreads to infect their daily life as they tend to fixate on negative qualities, performances, or interactions in multiple aspects of their lives including academics, sports, social life, extracurriculars, etc. (Kottman & Ashby, 2000). Many unhealthy perfectionists experience exaggerated reactions to their mistakes including extreme feelings of sadness, disappointment, or anger at themselves (Kottman & Ashby, 2000). These feelings may contribute to high concern over mistakes, as many unhealthy perfectionists believe that one or two mistakes will cause complete failure, therefore making themselves a failure (Kottman & Ashby, 2000). As noted by Emily Mofield in *Addressing Multidimensional Perfectionism in Gifted Adolescents With Affective Curriculum* (2010), many theorists in the research field of perfectionism conclude that concern over mistakes is the central concept to unhealthy perfectionism, (Burns, 1980; Hamachek, 1978; Pacht, 1984), which can manifest through self-critical depression, procrastination (Frost et al., 1990), eating disorders (Goldner & Cockell, 2002), anxiety (Delegard, 2004; Frost & DiBartolo, 2002), and low self-esteem (Delegard, 2004). According to Hamachek (1978) unhealthy perfectionists may

never feel satisfied with their performances because they believe they have not performed well enough to reach high standards and are often motivated to perform perfectly out of fear of failure, rather than the need to achieve. If left to their own devices, unhealthy perfectionists may become their own worst enemy as they allow the past to rule their present and future, rendering them unable to concentrate on the tasks at hand or possess the ability to move forward (Elliott & Meltsner, 1991; Freeman & DeWolf, 1989).

The most recently released statistics on the percentage of gifted and talented students enrolled in a gifted education program states 6.7 percent of America's students were enrolled in a gifted and talented program in their public school during the 2013-14 school year (National Center for Education Statistics, 2014). According to the National Center for Education Statistics, 50.8 million students attend public schools across the US (National Center for Education Statistics, 2019). This means a little over 3.4 million students are currently receiving services to enrich their education and accommodate their advanced learning. According to the federal Elementary and Secondary Education Act of 2002, the federal government defines a gifted student as, "Students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services and activities not ordinarily provided by the school in order to fully develop those capabilities" (Title XIII, Part A, Definition 27, 2018). While the federal government recognizes that gifted students need services beyond what the regular education classroom can provide, there is no federally mandated curriculum or plan for how gifted students will receive these services or what these services entail, which means the unique social and emotional needs of America's gifted students is rarely addressed in the school system. With

America serving approximately 3.4 million gifted students in grades K-12 in the public school systems, affective curriculum is needed to help gifted students understand and adjust to their unique social and emotional needs. In the study *Addressing Multidimensional Perfectionism in Gifted Adolescents With Affective Curriculum* Emily Mofield states, “An affective curriculum aimed at helping gifted adolescents decrease unhealthy aspects of perfectionism and develop more positive coping approaches is needed to promote healthy social and emotional growth” (Mofield, 2010).

Literature Review

There have been minimal studies aimed at improving the coping strategies of gifted and talented students in hopes of decreasing unhealthy perfectionism and increasing healthy perfectionism. Some of the most well known and comprehensive studies addressing the perfectionistic tendencies of gifted and talented students include *Voices of Perfectionism: Perfectionistic Gifted Adolescents in a Rural Middle School* by Patricia Schuler (1999), *Reaching New Heights: A Primary Prevention Program for Gifted Middle School Students* by Susan M. Klein (2004), and *Addressing Multidimensional Perfectionism in Gifted Adolescents With Affective Curriculum* by Emily Mofield (2010).

Voices of Perfectionism: Perfectionistic Gifted Adolescents in a Rural Middle School (1999)

Schuler's study investigates the characteristics of perfectionist gifted adolescents of both genders, how each student perceives their perfectionism, the influences on their perfectionism, and the consequences of their perfectionist behaviors in the context of their rural middle school experiences. Both qualitative and quantitative methods were used to collect data from 20 gifted male and female students identified as having perfectionistic tendencies in grades seven and eight at Brenan Middle School located in a mid-Atlantic state. In order to identify students as possessing perfectionistic tendencies, Schuler asked students to complete the Goals and Work Habits survey (1994), which is a modification of the Multidimensional Perfectionism Scale created by Frost, Marten, Lahart, and Rosenblate (1990) which addresses the six dimensions of perfectionism as identified by Frost; Concern over Mistakes, Parental Criticism, Parental Expectations, Personal Standards, Organization, and Doubts About Actions. The Goals and Work Habits survey asks the same questions as the Multidimensional Perfectionism Scale, but

the questions have been reworded and adapted as child-friendly. Schuler also asked math, english, science, and social studies teachers of gifted students to rate the student's behavior using the Empowering Gifted Behaviors Scale (Jenkins-Friedman, Bransky, & Murphy, 1986). Once data had been gathered, Schuler concluded that students with a moderate to high overall perfectionism score on the Goals and Work Habits Survey were considered as possessing perfectionistic tendencies.

The findings of her study confirmed the theoretical proposition that perfectionism is a common characteristic among gifted adolescents. In this particular study, 87.5% of participating gifted students were identified as possessing perfectionistic tendencies. These results further supported the multidimensional theory of perfectionism which states that perfectionism exists on a continuum with resulting behaviors ranging from healthy to dysfunctional (Hamachek, 1978). Upon further study, several differences between dysfunctional and healthy perfectionists were noted. In general the healthy perfectionists had a high need for order and organization, demonstrated self-acceptance of mistakes, happily rose to meet high parental expectations, displayed positive ways of coping with their perfectionistic tendencies, looked towards role models who emphasized doing one's "best," and viewed their personal effort as an integral part of their perfectionism. On the opposite end of the spectrum, dysfunctional perfectionists tended to live in a state of anxiety about making mistakes, set rigidly high expectations, questioned their own judgements, perceived excessive expectations and negative criticisms from others, lacked sufficient coping strategies, and displayed a constant need for approval.

Through analyzing the Empowering Gifted Behaviors Scale scores provided by the teachers of the participating gifted students, Schuler concluded some teachers may have had

difficulty identifying mild perfectionistic distress in their gifted students due to the common perception of gifted adolescents being “model students” who are “doing just fine.” The result of Schuler’s findings of the unhealthy behaviors of dysfunctional perfectionists and the large quantity of gifted adolescents struggling with perfectionism led Schuler to dedicate the rest of her study to describing suggestions, techniques, and strategies to assist parents, teachers, counselors and school systems to recognize and help gifted adolescents cope with their perfectionistic tendencies.

Schuler breaks down strategies and advice to specifically address each group that may come in routine contact with gifted adolescents, including parents, teachers, counselors and school systems. Among the most important advice for each of the groups is the following; For parents: recognize that you may yourself possess perfectionistic tendencies, then monitor how you demonstrate any behaviors that may be a result of perfectionism. Model grace for yourself when you make a mistake and talk about what you learned from the error and what you may do differently next time to be more successful. Model and talk with your child about the importance of having a growth mindset. Work with your child to teach them healthy study habits and encourage them to balance study, sleep, extracurriculars and leisure activities. Sensitize yourself to the pressures your gifted child may face to be perfect in any and all aspects of their lives. Understand that their intellectual and emotional characteristics are intertwined and influenced by each other and always offer praise for best effort, rather than performance.

For Teachers

One of the most important things a teacher can do for her students, especially her gifted students, is create an open environment in which it is okay to fail. If students fail, teachers

should focus on teaching students how to reevaluate a task with appropriate standards and set realistic goals, which can push a student to do their best, but also realize that goals are flexible and the journey to reaching the goal can usually teach a student more than actually achieving the goal itself. One recommendation for creating a growth mindset in the classroom is to avoid grading every assignment. This allows students the space they need to try their best while relieving the pressure to constantly perform to high standards. Teachers must also work to understand and educate themselves about the unique intellectual, social, and emotional needs of their gifted students, just like they would for any other student with unique needs in the classroom. While educating themselves on the unique needs of gifted children, educators should strive to recognize and identify signs of perfectionistic tendencies of their gifted students and understand how their perfectionism and sensitivity can positively or negatively affect their performance in the classroom as well as other areas of their life. Some identified possible indicators of perfectionism in a gifted adolescent include; a delayed start, refusal to turn in work or accomplish a goal; an unwillingness to share work, an inability to tolerate mistakes; and impatience with others' imperfections (Cohen, 1996).

For Counselors

The counselor has a unique role to play for the gifted student. Counselors can be the biggest champion and advocate gifted students possess to help dispel the myth that gifted students are “doing just fine.” In Schuler’s study, it was reported that the majority of gifted students participating had little or no contact with their school counselor, but when asked if they would like to participate in a group made up of students facing similar issues to discuss hardships and coping strategies, the majority of students responded positively. There are many techniques

school counselors may use to reach the school population of gifted students, some of these techniques focus on small group discussions or group therapy, therefore making outreach to the gifted population less time consuming for the school counselor. Within small groups counselors may strive to discuss some of the common issues gifted students may face including the “Eight Great Gripes” gathered from a study done by Galbraith (1983) in which 400 gifted students were interviewed to reveal a prevailing pattern of similar “gripes” including, “(a) the stuff we do in school is too easy and it's boring; (b) parents, (teachers, friends) expect us to be perfect, to "do our best" *all* the time; (c) friends who really understand us are few and far between; (d) lots of our coursework is irrelevant; (e) peers often tease us about being smart; (f) we feel overwhelmed by the number of things we can do in life; (g) we feel too different, alienated; (h) we worry a lot about world problems and feel helpless to do anything about them.” In order to address these issues counselors might discuss and help students obtain a healthy growth mindset, a continual acceptance of mistakes as a part of life, develop stress and frustration management skills, and discover students' weaknesses and strengths to help students realize that they do not have to be superior in all endeavors.

For School Systems

Many school systems ignore the social and emotional needs of gifted students and tend to focus only on the intellectual needs of these unique students. If gifted students are not challenged, or offered appropriate social/emotional services, gifted students can become bored, resentful, or underachieving (Passow, 1992). This can result in intrapersonal problems of self-acceptance, self-concept, and self-esteem, which may lead to dysfunctional behaviors or inappropriate coping strategies which could disrupt the school environment. School

administrators also possess a unique role in helping gifted students succeed, as administrators are the leaders of the schools, so they must be an advocate for their gifted students and lead the charge in meeting gifted students needs. When Schuler asked her study participants what they think the schools could be doing to meet their unique needs, students responded with identical requests to what the current literature suggests schools should be doing to challenge their gifted students including; higher level curriculum in their areas of special talent or strength, the challenge of working with other high ability peers, faster pace of instruction, in-depth research, and group counseling opportunities (VanTassel-Baska, 1990).

Schuler's study continually returned to the same question as more gifted adolescents were interviewed, "What are the students saying?" When asked about their thoughts on participating in Schuler's study one student relayed the plea of so many gifted students around the nation in just a few sentences by saying, "I think it's good. I think it helps people to know what high ability kids have to say, because normally teachers don't really pay attention to us because they think we're doing fine. They give more attention to kids who are struggling, but I feel this will help them to understand that we have problems, too." Throughout the many interviews Schuler conducted, gifted adolescents shared emotional, interpersonal, social, and intrapersonal struggles related to perfectionism. Many of these gifted adolescents were distressed by their own and other's expectations, experience intense guilt and frustration when they fail or make mistakes, and set rigid standards for themselves. Many students are bound by the amount of work they receive, spend countless hours perfecting unchallenging tasks, rarely experience the "joy of struggle" in their classrooms, but are continually driven by external rewards and the pursuit of high grades. Throughout this study, a high need for intellectual challenge infused with learning

coping skills, creative problem solving, and relaxation techniques emerged. This study revealed the multidimensional nature of perfectionism through the perceptions of rural gifted adolescents. Their voices clearly communicated the essential need for school systems, administrators, parents, and teachers to provide intellectual challenges, supportive environments for fostering a growth mindset, and expectations that are high, but flexible, and a hope that their unique needs will no longer slip through the cracks.

Reaching New Heights: A Primary Prevention Program for Gifted Middle School Students
by Susan M. Klein (2004)

Klein's study strives to improve the mental health of gifted adolescents through the development, implementation and evaluation of a primary prevention program following the "wellness enhancement" model targeted towards all gifted sixth and seventh graders in a school district. Participating students were evenly selected from three participating middle schools in the same school district of a semi-industrial midwestern town and divided into two groups with the first participating in the intervention program in the fall semester and the second group receiving delayed intervention in the spring semester.

Prior to implementing Klein's primary intervention model students were asked to fill out pre test surveys in each area the Primary Intervention Model would be addressing including Fear of Negative Evaluation subscale of the Social Anxiety Scale for Children - Revised (SASC-R) (LaGreca & Stone, 1993), Test Anxiety Scale for Children (TASC; Sarason, Davidson, Lighthall, Waite, & Ruebush, 1960), Multidimensional Perfectionism Scale (Frost et al., 1990), Socially Prescribed Perfectionism subscale that is paired with the Child and Adolescent Perfectionism Scale (Flett, Hewitt, Boucher, Davidson, & Munro, 1997), a checklist including

previously identified stressors in empirical and theoretical literature as being pertinent to gifted children including social situations, academics, and perceived coping effectiveness of listed stressors (Klein, 2002; Preuss, 1999), self-efficacy scale, and a few short vignettes similar to those created by Dubow, Schmidt, McBride, Edwards, and Merk (1993) in which children wrote open ended responses.

Klein developed a 13 week intervention program taught to a group of participating gifted adolescents for one fifty minute period per week titled "Reaching New Heights." The curriculum was designed to teach students to practice general stress management techniques in response to academic or social stressors. The intervention also strives to decrease negative aspects of perfectionism such as doubting one's actions, concern over mistakes, perceiving high expectations and criticisms from others while increasing positive aspects of perfectionism such as setting high standards for oneself. Reaching New Heights is also designed to provide tips for students to help them manage their time more effectively and confront others whom they believe expect too much of them.

The program was broken up into sections with the first session serving as an introduction and explanation of the study. The subsequent class periods focused on the following topics through a variety of activities including small group discussions and homework assignments. Three sessions are devoted to stress management techniques including relaxation and cognitive restructuring, one session focuses on time management by setting priorities, making to do lists, and evaluating how one spends their time, and six sessions are devoted to perfectionism by focusing on cognitive restructuring, evaluation of other's expectations, confronting those with high expectations of oneself, learning to take risks, and looking at one's mistakes in perspective.

The final week served as a wrap up session (Appendix B). During the weeks of stress management and perfectionism instruction Klein sent letters home to the parents explaining the techniques their students were learning in order to foster growth and conversations at home.

After completing the Reaching New Heights curriculum with two groups of gifted adolescents Klein reported the Reaching New Heights program showed an aptitude of effect in two areas; problem solving skills and stress reduction, while no effects were discovered for anxiety, coping effectiveness, perfectionism, or self-efficacy for coping with stressful events. Klein states this is the first prevention program of its kind targeted specifically for gifted children, therefore the results of the study must be considered within the context of programs designed for non-gifted children.

Students in Klein's study reported no changes in anxiety levels, but they did report less stress with regard to their individual target stressors. At the conclusion of the study 78% of participating students reported that the information they learned could help them if they experienced a stressor. Klein states future researchers in this field should focus on tailoring stress management programs to individual students' needs. Although the Reaching New Heights program did not present problem solving skills in an organized fashion, it did yield a positive increase in student's ability to solve problems, but Klein suggests future researchers develop a step by step approach strategy to better help students effectively solve problems and manage stress. When assessing self-efficacy, Klein reported no program effects attributing this finding to the possibility that the Reaching New Heights program did not provide enough opportunities for students to practice the taught self-efficacy techniques.

The Reaching New Heights Program did not prove to be effective at reducing dysfunctional levels of perfectionism regarding socially prescribed perfectionism, doubts about actions, or concern over mistakes. Klein attributes this to a possible amount of inadequate time spent on the topic during the program and difficulty addressing the topic as children might be embarrassed to disclose how perfectionism truly affects them in group settings. This was the first study ever to use a primary prevention program to address perfectionism in children, so the results cannot be considered conclusive. Klein urges others in the field to continue researching the issue because perfectionism has been linked to a plethora of negative outcomes.

Klein reports several limitations and improvements for her study for future researchers. One of the biggest limitations identified is the amount of characteristics the study tried to measure, address and improve upon within the prevention program. While time management, stress management and perfectionism are conceptually related, it is possible the program was not able to go in depth enough with any of the topics to make a measurable difference. Klein's suggestion for future researchers is to focus on only one area in a prevention program in order to address the topic more thoroughly.

Addressing Multidimensional Perfectionism in Gifted Adolescents With Affective Curriculum by Emily Mofield (2010)

Mofield's study focuses on the effects of an affective curriculum addressing perfectionism among suburban middle school students with a hypothesis stating, "Given opportunities to develop self-awareness of expectations (self- and other-imposed) through participation in discussions, activities, role-playing, games, and enhancement of goal-setting within an affective curriculum, gifted students would decrease unhealthy aspects of

perfectionism and enhance healthy dimensions.” The study included 153 gifted students enrolled in grades 6,7, and 8 at a suburban school district in the southeastern part of the United States. Three schools from the public school district were selected to participate with one school serving as the control group and the other two schools serving as the experimental groups. Levels of perfectionism were measured by the Goals and Work Habits Survey (Schuler, 1994) with sub categories broken down into the following Personal Standards, Parental Standards, Parental Criticism, Organization, Concern Over Mistakes and Doubts About Actions. Teachers implementing the affective curriculum designed by the researchers of this study received training in “Searching for Perfect Balance.” The Searching for Perfect Balance curriculum includes nine lessons taught in 45-50 minute intervals over a period of six weeks. Lesson ideas were gathered from books for teachers and parents of gifted students, empirical studies found in the literature review, and suggestions by professionals with clinical experiences working with gifted students in order to help students develop self-awareness and skills to cope with pressures, expectations from others, and unhealthy aspects of perfectionism. The Searching for Perfect Balance curriculum is modeled after Klein’s Reaching New Heights curriculum, but the present study adapted many of the activities based on previous recommendations.

After the completion of the Searching for Perfect Balance Curriculum the researchers reported a significant difference in post test mean scores for the sub category Concern Over Mistakes compared to the pretest scores as well as small to moderate differences for Personal Standards and Doubts about Actions. This study differed from other studies in the field because it focused on helping gifted students understand how qualities of giftedness such as heightened intensity and sensitivity may influence their behaviors and thoughts towards pursuing

perfectionistic tendencies rather than teaching students to eradicate perfectionistic tendencies altogether. Findings in the study show no immediate effects on perfectionism of participating adolescents because the results of the study are thought to be more longitudinal and would need to be studied on long term basis by analyzing students reactions to real life situations and stressors as they occur rather than self-reported data to hypothetical situations. Since the Searching for Perfect Balance curriculum was designed to focus on student's reactions to Parental Standards and Criticisms, it could not address the actual standards and criticisms of parents, therefore in order to fully address these topics parental involvement and education should be included to help them understand the unique needs and sensitivities of their gifted students. The overall conclusion of the study states that implementing an affective curriculum in a gifted classroom decreased several components of unhealthy perfectionism.

The present study synthesizes the information of past studies and seeks to address the following research question: Does implementing a unit addressing each of the six dispositions of perfectionism during gifted student's class time reduce unhealthy perfectionism and increase healthy perfectionism, while leading towards a growth mindset?

Methodology

Participants

The sample included 11 gifted and talented participants in grades 7 and 8 in a rural school district of the Southeastern United States. The school chosen to participate in the study serves a population of 636 primarily Caucasian students in grades 4-8 (Kentucky School Report Card, 2019). Participants qualified for the gifted program by meeting one or more of the criteria the Kentucky Department of Education (KDE) uses to identify gifted students: (1) general intellectual aptitude, (2) specific academic aptitude, creative or divergent thinking, psychosocial or leadership skills, and (3) visual or performing arts (KDE, 2020). Participants attended a Growth to Healthy Perfectionism lesson for approximately 50 minutes once a week for eight weeks in place of their enrichment class on Friday mornings. Gifted students were selected to participate in the study by the district's gifted and talented coordinator per observation of students that may benefit from the study and pending parent signature of a permission form.

Eight participants in Growth to Healthy Perfectionism were female and 3 were male. Three participants were in seventh grade and 8 participants were in eighth grade. Seventy-three percent of participants identified their ethnicity as White, while 9% participants identified as Asian, 9% of participants identified as half Indian and half White and 9% of participants preferred not to say. Most of the participants knew each other well through co-curricular activities and gifted classes throughout their school career and possessed friendships within the classroom, but it was clear tensions sometimes rose between some participants as they jockeyed to be "the best" in their academic, performing arts, or social endeavors. Not all participants appeared to be part of this "group" and maintained quiet friendships within the sample or mostly

kept to themselves. Overall the class was able to mostly speak freely about feelings and opinions during class discussions.

Instrumentation

There have been multiple scales developed in order to measure the level of perfectionism a person possesses, but since the construct of perfectionism is debatable based on the criteria one chooses to define it by, different scales have been created to measure different aspects of perfectionism. The Burns Scale was created in 1980 with a focus on measuring concern over mistakes and personal standards, but uses a one-dimensional approach, rendering the scale limited. In 1991 Hewitt and Flett created the Multidimensional Perfectionism scale to assess the interpersonal natures of perfectionism and determine whether perfectionism may be self-oriented, other-oriented, or socially prescribed. This scale was eventually adapted for children using 22 statements and named the Child-Adolescent Perfectionism Scale (CAPS) (Flett, et al., 1997). Frost et al. developed the Frost Multidimensional Perfectionism Scale (MPS) in 1990 based on Hamchek's (1978) six dimensions of perfectionism Concern Over Mistakes, Doubts About Actions, Personal Standards, Parental Standards, Parental Criticism, and Organization in order to measure the intrapersonal dimensions of perfectionism. The scale asks participants to rate 35 statements addressing one of the six dimensions of perfectionism using a likert scale from 1 to 5 to rate their opinions on the statements from strongly disagree to strongly agree. In *Voices of Perfectionism Perfectionistic Gifted Adolescents in a Rural Middle School* (1999) Patricia Schuler adopted the Frost MPS for children by rewording the statements to be more child friendly, but retained the length and formatting of the survey while renaming it the Goals and Work Habits Survey. Since the Growth to Healthy Perfectionism curriculum

addresses Hamchek's six dimensions of perfectionism, the Goals and Work Habits Survey was administered prior to the first lesson of the Growth to Healthy Perfectionism curriculum and after the completion of the Growth to Healthy Perfectionism curriculum to collect pre and post data on the levels of the six dimensions of perfectionism each participant possesses.

Procedures

The Growth to Healthy Perfectionism curriculum is composed of eight sessions lasting approximately 50 minutes each. For the present study the Researcher met with participants once a week, but the sessions could be taught closer together if so desired. Since there is currently no federal or state criteria and curriculum addressing the social and emotional needs of gifted participants across the US, Growth to Healthy Perfectionism was designed to address the National Association of Gifted Children (NAGC) standards. The curriculum strives to address Standard 4: Learning Environment in student outcomes, which states "4.1. Personal Competence. Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity, and risk taking" (National Association for Gifted Children, 2019). In order to align with the student outcome standards by NAGC, Growth to Healthy Perfectionism is designed based on the NAGC's evidence based practices, which address the educator's role in helping gifted students achieve the standard. The educators's standards aligned with student outcome 4 for learning Environment: Personal Competence include "4.1.1. Educators maintain high expectations for all students with gifts and talents as evidenced in meaningful and challenging activities, 4.1.2. Educators provide opportunities for self-exploration, development and pursuit of interests, and development of

identities supportive of achievement, e.g., through mentors and role models, 4.1.3. Educators create environments that support trust among diverse learners, 4.1.4. Educators provide feedback that focuses on effort, on evidence of potential to meet high standards, and on mistakes as learning opportunities. 4.1.5. Educators provide examples of positive coping skills and opportunities to apply them” (National Association for Gifted Children, 2019).

Each lesson plan in Growth to Healthy Perfectionism lists the personal competency from standards 4.1 the lesson addresses. The ideas for Growth to Healthy Perfectionism were gathered through wide reading of the primary researcher in best practices for gifted students, through brainstorming sessions with professionals in the educational field, and adapted from Klein’s *Reaching New Heights* study (2004). Each lesson strives to provide participants with hands-on experiences in each of the six dispositions of perfectionism and provide participants with the opportunity to reflect on each disposition in their personal life and provide any necessary tools the participants might need for coping with a particular disposition.

Lesson 1 serves as an introduction to the curriculum, the administering of the pre test Goals and Work Habits Survey (Schuler 1994) and an introduction of the primary researcher to the participants and vice versa. Lesson 2 addresses Personal Standards and teaches the SMART Goals setting strategy to set high, but achievable goals rather than rigidly unattainable goals. This lesson also asks participants to write “I am” poems in order to define themselves by their core characteristics rather than their accomplishments (Mind Goals Content Team, (n.d.); Klein 2004). Lesson 3 addresses Parental Expectations, while Growth to Healthy perfectionism cannot change parental expectations, it can give participants the tools to appropriately react and cope with parental expectations. This lesson provides scenarios in which participants read about a

student who is facing harsh parental expectations and are asked to write a three-step “I statement” telling the parent how these expectations make them feel (Clements and Wachowiak, 2010). Participants are then asked to identify a situation in their own life where they felt overwhelmed by another’s expectations for them and write their own three step “I statement” addressing the person expecting high expectations. Lesson 4 addresses Parental Criticism, once again the criticism of parents cannot be changed through Growth to Healthy Perfectionism, but it can give participants the tools to react and cope with criticisms from others. In this lesson participants are taught strategies to deliver constructive criticisms and brainstorm ways to accept, learn, and grow when receiving constructive criticisms. Participants are given 10 minutes to create an art project that tells us something about themselves, then are paired together and asked to write a constructive criticism comment about their peers' work and identify the strategy they used. They then reflect on the experience of giving and receiving constructive criticism and how they plan to approach constructive criticisms in the future (Lazarus, 2011). Lesson 5 addresses Concern Over Mistakes by asking participants to reflect on the way they feel after making a mistake, then introducing the participants to inventions that were created by mistake. Participants are then asked to find and research an invention that was created by mistake and share the story with the class (Klein, 2004). To wrap up the lesson participants discuss what characteristics help them overcome making mistakes and add their three characteristics to a class Word Cloud. Lesson 6 addresses Doubts About Actions by asking participants to reflect on the way they feel about their work after completing a task. Participants are then given 10 minutes to construct a catapult to see who launches a mini marshmallow the farthest. Each participant receives three test runs and then is permitted a short reconstruction time. After the final testing

period participants reflect on how the short time frame affected their approach to building and reconstructing. Participants were asked to write a journal response to the question, “How can we translate what we learned today about completing a task to completing tasks, or making decisions in our everyday lives?” Lesson 7 addressed Organization through the Jar of Life demonstration and asking participants to create pie charts of how they spend their time each day. Participants then learned different organizational strategies and were asked to apply one strategy to their personal life and draw a new pie chart of how they would like to organize the time in their day. Lesson 8 served as a conclusion to Growth to Healthy Perfectionism, a collection of post test data from the Goals and Work Habits Survey (Schuler 1994), and participants made a sticker of their biggest takeaway from the unit.

Results

A mixed methods research method was chosen for the primary study in order to best understand and analyze the effectiveness of Growth to Healthy Perfectionism. Results are analyzed through both a quantitative and qualitative lens. Quantitative analyses determined if significant differences were observed between pre and post test scores on the Goals and Work Habits Survey. Qualitative results are analyzed through case studies of specific participants as well as responses to reflection questions during lessons and open ended reflection questions from post test data of the Goals and Work Habits Survey. A mixed methods research approach serves as the best way to incorporate all data from the current study and provide the most comprehensive look at the effectiveness of Growth to Healthy Perfectionism.

Statistical Analyses

The current study's primary research question was to ascertain the initial efficacy of a gifted and talented curriculum on participants' perceived perfectionist tendencies. To answer the question, a series of paired-samples t-tests were conducted to measure if significant improvements in negative perfectionist tendencies were detected over time. The paired-samples t-test is an appropriate inferential statistical test that is designed to measure within-subjects score differences as the result of an intervening variable (Field, 2014). There are two core assumptions that must be satisfied before employing this procedure. First, it is vital that observers are independent from one another within groups. This assumption was satisfied during the administration of the Goals and Work Habits Survey both at pre and post assessment by separating participants from one another and monitoring the assessments' administration. Second, it is imperative that the group difference scores are normally distributed for the sample

in order to justify using an inferential analysis procedure. To satisfy this assumption, the author conducted (1) a visual inspection of the histogram plots for all six composite scores, and (2) computed Z-scores for both skewness and kurtosis for all six composite scores (Kim, 2013; see Table 1). Sufficient evidence of normality existed to justify the paired-samples t-test analysis.

The principle analysis investigated whether significant differences were observed across participants for each of the six dispositions of perfectionism. Sixteen participants were included in the sample. Due to extenuating circumstances, a number of participants were unable to complete the post-assessment; the current analysis elected to exclude participants who did not complete both pre and post assessments ($n=5$), resulting in a final sample size of 11 participants. A series of paired-samples t -tests were conducted for each of the participants with pre-and-post assessments for each measure of perfectionism: (1) Parental Expectations, (2) Organization, (3) Parental Criticism, (4) Personal Standards, (5) Doubts about Actions, and (6) Concern over Mistakes.

Parental Expectations

Participants reported statistically-similar levels of *Parental Expectations* from pre-assessment ($M = 16.27$, $SD = 3.26$) to post-assessment ($M = 16.64$, $SD = 4.23$), $t(10) = -.392$, $p > .05$.

Organization

Participants reported statistically-similar levels of *Organization* from pre-assessment ($M = 21.36$, $SD = 6.56$) to post-assessment ($M = 21.45$, $SD = 6.28$), $t(10) = -.101$, $p > .05$.

Parental Criticism

Participants reported statistically-similar levels of *Parental Criticism* from pre-assessment ($M = 9.09$, $SD = 3.30$) to post-assessment ($M = 9.55$, $SD = 3.01$), $t(10) = -.495$, $p > .05$.

Personal Standards

Participants reported statistically-similar levels of *Personal Standards* from pre-assessment ($M = 27.00$, $SD = 4.17$) to post-assessment ($M = 25.82$, $SD = 4.09$), $t(10) = 1.56$, $p > .05$.

Doubts about Actions

Participants reported statistically-similar levels in *Doubts about Actions* from pre-assessment ($M = 13.73$, $SD = 2.80$) to post-assessment ($M = 12.64$, $SD = 4.00$), $t(10) = 1.16$, $p > .05$.

Concern over Mistakes

Participants reported statistically-similar levels in *Concern over Mistakes* from pre-assessment ($M = 29.36$, $SD = 8.54$) to post-assessment ($M = 26.36$, $SD = 7.81$), $t(10) = 1.96$, $p > .05$. Unlike other perfectionism measures, observed differences in *Concern over Mistakes* approached significance ($p = .079$).

Qualitative Analyses

Post participation reflections made by participants upon completion of Growth to Healthy Perfectionism reinforce the numerical data of participants who showed self-identified improvement in decreasing unhealthy perfectionistic tendencies and increasing in healthy perfectionistic tendencies. A participant who was classified as an unhealthy perfectionist based

on her pre test scores on the Goals and Work Habits Survey with an overall perfectionism score of 69% shared in her post unit reflection, “I originally thought that it [perfectionism] was originally uncontrollable. Now I think that it doesn’t have to affect me so much. That it is controllable. Sometimes things don’t always have to be perfect. If I spend all my time trying to be perfect, I’ll never be happy.” This participant showed a small decrease in her overall perfectionism score of 68% in her post test scores.

One participant, who verbally identified herself as a perfectionist during class discussions at the beginning of the unit, shared upon completion of the unit, “I feel a lot better about my perfectionism, but it’s still there. My biggest personal takeaway is that it is okay to make mistakes.” Throughout participating in Growth to Healthy Perfectionism this participant was able to be introduced to aspects of perfectionism that were impacting her life negatively and implement strategies to help her transition to more healthy perfectionistic tendencies.

Upon completion of participating in Growth to Healthy Perfectionism participants were asked to answer the question, “Do you feel like you struggled with perfectionism at the beginning of the unit?” Sixty-four percent of participants responded “Yes,” while 36% of participants responded “No.” 88% of females identified themselves as struggling with perfectionism before the unit began, while 100% of males participating in the unit did not identify themselves as perfectionists. As a follow up question participants were asked, “If you circled yes to the above question, do you currently feel like you struggle with perfectionism?” Forty-three percent of participants who identified as struggling with perfectionism before the unit began stated they are still struggling with it, while 29% of participants who stated they struggled with perfectionism before the unit began stated they no longer struggle with perfectionism.

Twenty-nine percent of participants responded to the follow up question with a growth mindset and stated that they were somewhere between “Yes” and “No” for still currently struggling with perfectionism. Overall, 58% of participants who identified themselves as struggling with perfectionism before the unit began showed self-identified improvement in moving away from struggling with unhealthy perfectionism upon completion of Growth to Healthy Perfectionism.

Case Studies

In order to further analyze the effects of Growth to Healthy Perfectionism, a case study representing each type of perfectionist; non-perfectionist, healthy perfectionist, and unhealthy perfectionist follows. Each participant was chosen for the characteristics they demonstrated and personal growth they achieved during the unit. Pseudo-names are used to protect the identity of participants in the study.

Non-Perfectionist. Drew has all the characteristics of a non-perfectionist including low scores in organization, personal standards, parental expectations and a low overall combined total perfectionism score of 41%. At first glance Drew appears to be a quiet boy who is small for his age with a mop of curly, sandy- brown hair, black plastic framed glasses, and a perpetual uniform of athletic clothing. His appearance makes it hard to peg him into any one middle school clique and upon further inquiry, one can see that Drew cannot be bound to just one category because he is best described as well-rounded. His bright, curious eyes that are always ready to take in new information make him a model student and it is apparent his teachers look to him as a quiet leader within their classrooms. Soccer is of the utmost importance to Drew and even though he is currently only in the seventh grade, he was asked to play on the high school soccer team where he excelled in the competitive environment. Besides playing sports, being

active in the school band as a percussion and piano player are two things Drew dedicates a lot of his time to. When asked to finish an “I am” statement, Drew responded with the following sentence, “I am almost always happy,” which describes his happy-go-lucky personality, but he finished another sentence as “I am worrying about a lot,” which alludes to his deep thinking nature, which one may not realize he possesses unless one closely observes his actions and speech.

At a time when most boys his age may begin to shy away from participating in a unit that discusses personal emotions, growth, and reflection, Drew took an interest in personally bettering himself. He routinely expressed throughout class time that he hoped to take something away from the unit to help him improve his personal life. His classroom activities and personal reflections expressed he was not particularly concerned with perfectionism and felt like he did not exhibit many perfectionistic tendencies, which aligned with his overall low scores on the Goals and Work Habits Survey to identify him as non-perfectionist. A statement made by Drew in his Parental Criticism reflection shows the level head he carries on his shoulders when it comes to non-perfectionist tendencies. When asked “How do you feel when someone gives your work or actions constructive criticism and why?” he responded with, “I don’t feel happy because I’ve made a mistake, but I am grateful to be corrected if I’m doing something wrong.” This showcases his already healthy growth mindset and his lack of perfectionistic tendencies.

Although Drew was identified as a non-perfectionist, he was still able to benefit from the unit and even further decrease his already low score in Parental Expectations. As reported in his Goals and Work Habits survey, Drew went from an overall pre score of 44% in Parental Expectations to a 28% in his post test data, for a decrease of 16% in Parental Expectations. During the Parental Expectations lesson, in which I focused on the general expectations one

might feel others have for them, Drew expressed concern about pressure to perform to high standards on his high school soccer team and the comments he sometimes received from teammates regarding his performance. Drew successfully created a three-step “I statement” in response to teammate’s overly high expectations of him in which Drew stated how his teammates comments made him feel (angry and stressed), the action that made him feel this way (when his teammate made comments holding him to overly high standards), and stated his request for his needs (do not put pressure on me to never mess up).

Healthy Perfectionist. Taylor comes very close to demonstrating all the characteristics of a healthy perfectionist. She scored low in Parental Criticism and Doubts About Actions with a high score in Organization and a moderate overall combined total perfectionism score of 55% on the Goals and Work Habits Survey. Taylor was enthusiastic about participating in class and was always the first student to the classroom. Despite the fact that she was one of the youngest students in class, Taylor was eager to raise her hand and share her thoughts with the rest of the group. While waiting for her classmates to finish their work Taylor would typically be seen pulling out her book to read a few paragraphs before the class required her full attention again. She was a self-proclaimed avid reader and insisted that she would read anything put in front of her. Her other hobbies were playing french horn in the school band and ballet. As one of the younger students in the class she was not fully accepted into the social circle of “band kids,” but tried her best to break into the inside of the circle. Her sweet smile and motivation to do things the right way no doubt made her a reliable student in the eyes of her teachers.

The one characteristic keeping her from being identified as a true healthy perfectionist prior to participating in Growth to Healthy Perfectionism is her high score in Concern Over

Mistakes. When asked to reflect on the question “How do you feel when you make a mistake? Why do you think you feel this way?” Taylor responded with, “When I make a mistake, I feel like I am letting myself down, like I wasn’t enough. Most times my parents aren’t too mad at me, I’m just hard on myself because the harder I am on myself, the better I’ll be.” Taylor had one of the highest pre-test scores on the Goals and Work Habits Survey in Concern Over Mistakes with a score of 78%. This high score was reinforced by her “spiral” behavior, which was verbally demonstrated in the opening of many lessons at the beginning of the unit. During class discussions when asked to share how perfectionism affects one personally Taylor expressed a “negative perfectionism spiral” in which making one small mistake, such as getting a “B” on her report card would result in a downward spiral of her life in which she would not get into a “good” college, never get a job, and end up homeless. This same sentiment was expressed over the course of the first two weeks before small improvements in this attitude were shown. Each week the expression of a negative perfectionism spiral became smaller and smaller until by the last lesson spiral behavior was not part of her thought process.

Her post test data showed a large improvement in Concern Over Mistakes with a post test score of 58% for a 20% decrease, which put her in the moderate to low range scores of post test Concern Over Mistakes. Her overall combined total perfectionism score decreased 2% from 55% in her pretest scores, to 53% in her post test scores. This decrease is reinforced by her reflections on perfectionism upon completion of Growth to Healthy Perfectionism. When asked to answer the question “How has your view of perfectionism changed after participating in this unit?” She responded with, “Before this unit, I thought perfectionism was a part of me. Now I realize that I can turn it off when I need to.” She also shared her biggest personal take away

from the unit as “My biggest personal take away was that I can choose whether to be perfect or not.” The last piece of data that solidifies Taylor’s shift to growth mindset and true healthy perfectionism is her answers to the following questions. In the post test data collection of the Goals and Work Habits Survey participants were asked to answer the question, “Do you feel like you struggled with perfectionism at the beginning of the unit?” Taylor answered Yes. The follow up question stated “If you circled yes to the above question, do you currently feel like you struggle with perfectionism? Taylor responded by circling the space between yes and no, which demonstrates struggling with perfectionism is a process, but she is now more aware of the harmful effects of unhealthy perfectionism and is mindful to not let it control her life.

Unhealthy Perfectionist. Cameron is a classic unhealthy perfectionist. Her scores were high in concern over mistakes, personal standards, parental expectations, doubts about actions, parental concern and a high overall total perfectionism score. Cameron had nearly one of the highest scores in pre-test data for overall total perfectionism score with an overall perfectionism percentage of 65%. Cameron is a part of the “band kids” group that seems to dominate the classroom, although she is not loud or typically demands the attention of her peers. Cameron is very close friends with one other girl in the group and it is clear that the two of them are inseparable and create their own sub-group within the group of band kids. Cameron is the more quiet of the two friends, and although she will volunteer answers in class, she is mainly an introspective student interested in traveling and Greek mythology.

Cameron’s quiet nature could be attributed to her high score in Doubts About Actions. It appeared Cameron was not always confident in herself or her abilities, which could be attributed to possessing doubts about her actions. Her pre-test data scores showed an overall percentage of

90% in Doubts About Actions. When asked to reflect on how she feels about the tasks she completes, she responded by saying, “Sometimes I feel like it’s pretty good, because for the most part, I put a lot of effort into my work. Although, sometimes I feel that something is missing because I might have procrastinated or rushed my work.” Cameron demonstrated growth throughout the Doubts About Actions lesson when she stepped out of her comfort zone and took the lead while working to build a catapult with her friend during the timed catapult activity. After the activity participants were asked to reflect on how they could translate what they learned today about completing tasks, or making decisions to their everyday life. Cameron responded by saying, “It’s always important to think carefully about everything you’re doing. You need to always attempt to try your best at all times, so you don’t doubt your work. Though you might make some accidents, that’s okay! You always have room to grow!” Her final post test scores reflected this growth, as she decreased 35% in her overall Doubts About Actions Score for a post test score of 55% on her Goals and Work Habits Survey.

As a result of participating in Growth to Healthy Perfectionism Cameron significantly decreased in unhealthy perfectionistic tendencies and increased in healthy perfectionism. Her overall combined total perfectionism score decreased from 65% in her pre-test scores on the Goals and Work Habits Survey to 48% in her post-test scores for a 17% total decrease of overall perfectionism score, which was the largest decrease of anyone in the unit and demonstrates her change from unhealthy perfectionism to healthy perfectionism. This decrease can further be reinforced by her responses to the post test questions “Do you feel like you struggled with perfectionism at the beginning of the unit?” which Cameron answered “Yes” to. The follow up question stated “If you circled yes to the above question, do you currently feel like you struggle

with perfectionism?” which Cameron responded “No” to. Her decrease in unhealthy perfectionism can further be demonstrated by her response to the question, “How has your view of perfectionism changed after participating in this unit?” in which Cameron responded, “I have realized that there can be unhealthy perfectionism and being *too* much of a perfectionist can be a bad thing.”

Discussion

Implications

In order to place the results of this study in a framework, it is beneficial to consider the ways in which these results are consistent or inconsistent to similar studies in the same field. Although there were no conclusive results to be drawn from Growth to Healthy Perfectionism, the results the data begins to approach are similar to the results of Mofield's study; *Addressing Multidimensional Perfectionism in Gifted Adolescents with Affective Curriculum*. Mofield's study also addresses the six dimensions of perfectionism through a school based primary prevention program. The paired t-tests of her experimental group's results indicated significant decreases in Concern Over Mistakes, Personal Standards, and Doubts About Actions, for unhealthy perfectionists, and Growth to Healthy Perfectionism began to allude to similar decreases in concern Over Mistakes.

As more studies of the same nature are conducted, a pattern may begin to emerge in which gifted adolescents struggling with unhealthy perfectionism and enrolled in a school based primary prevention program addressing unhealthy perfectionistic tendencies are able to learn how to adjust their perceptions of self and the way others perceive them into a growth mindset and work towards decreasing in unhealthy perfectionism. The first study to ever address perfectionism in gifted adolescents through a school based primary prevention program, *Reaching New Heights* conducted by Klein, did not prove to be effective in reducing levels of unhealthy perfectionism, especially pertaining to Concern Over Mistakes and Doubts About Actions. Klein attributes this to not spending enough class sessions dedicated to the topic of

perfectionism within her school based primary prevention program, which addresses multiple topics and stressors gifted adolescents might face.

In regards to whether or not school based primary prevention programs addressing the social and emotional needs of gifted and talented adolescents is necessary and beneficial, the data gathered from *Growth to Healthy Perfectionism* supports the findings of past studies in the same field stating that gifted students need a specialized curriculum to help them understand their giftedness. In Galbraith's study (1983), which was used to help lead Schuler's (1999) study, gifted and talented students in a survey group reported one of the "eight great gripes" of being a gifted student is, "parents, (teachers, friends) expect us to be perfect, to "do our best" *all* the time." Schuler (1999) referenced this information in order to discover the majority of gifted students she surveyed responded positively when asked if they would like to participate in a group made up of gifted students facing similar issues to discuss hardships and coping strategies pertaining to being a gifted and talented student. Klein's study (2004) advocated for the implementation of primary prevention programs specifically tailored to the emotional and social needs of gifted and talented students in order to prevent increased chances of mental health issues. Mofield's (2010) study successfully implemented an affective curriculum for gifted and talented students addressing the same six dispositions as *Growth to Healthy Perfectionism* and reported significant decreases in Concern Over Mistakes, Doubts About Actions, and Personal Standards. In *Growth to Healthy Perfectionism*, 58% of participants who initially stated they struggle with perfectionism reported they no longer or are growing towards no longer struggling with perfectionism. All of these results advocate for the implementation of social/emotional

curriculums, especially addressing the struggle of perfectionism, for gifted and talented adolescents.

A specific example of how a school based primary prevention program addressing perfectionism and the emotional/social needs of gifted and talented students is demonstrated through an adolescent's experience of participating in Growth to Healthy Perfectionism. One participant was self-aware that her perfectionistic tendencies could be harmful in her life, but without a place to discuss her thoughts and learn strategies to overcome unhealthy perfectionistic tendencies, she could have spiraled into unhealthy mental health patterns. This participant will now be able to enter high school with new strategies and coping skills to combat unhealthy perfectionistic tendencies combined with an awareness of how her thoughts and actions can impact her self-image. She demonstrated growth in her thinking patterns and showed how her perspective on perfectionism was changed as a result of becoming more aware of perfectionistic tendencies and the personal choices she makes to be a healthy perfectionist versus an unhealthy perfectionist. In her post unit reflection she stated, "I've always realized my perfectionism has potential to be a negative thing in my life, but this unit has helped me see ways to fight it/be perfectionistic in a healthy way.

Another participant identified as an unhealthy perfectionist with an overall pre-test total perfectionism score of 61% based on her Goals and Work Habits Survey saw a 7% decrease in her overall perfectionism score for a 54% total perfectionism score in her post test survey. She expressed her surprise at realizing other participants felt the same way as her regarding perfectionistic tendencies, "Surprisingly, it's actually that there are a lot of people my age that struggle with perfectionistic tendencies, people I didn't think would. It has been almost

comforting in a way.” Without an opportunity to share one’s thoughts and feelings regarding the pressures of being gifted and talented, these students may continue to suffer in silence and feel isolated from the rest of their peers. Providing gifted students an opportunity to discuss their mental health in a primary prevention program reduces the chances of isolation and increases connectedness within peers.

The Growth to Healthy Perfectionism unit seeks to synthesize the findings from these past studies and create a primary prevention program designed to give gifted and talented students a safe space to grow in community with one another and discuss the struggles and hardships of being different from their peers.

Limitations and Suggestions for Future Research

Multiple limitations must be considered when interpreting the results of the present study. The small margin of findings and low statistical power paired with non-significant findings may be attributed to the small sample size of participants. With only eleven participants to gather data from, the study can be summarized as a pilot study that serves as a first trial to test the lessons generated for Growth to Healthy Mindset and their effectiveness and teachability in real life situations to students; therefore the results should be interpreted with the understanding that statistical evidence may be skewed due to the small number of participants in the study. The small sample size may have been too small to detect any overall group changes in the outcome variables. In order to garner accurate and measurable results for whole group comparison, the study needs to be replicated with a much larger sample size.

The lack of published assessments in the gifted and talented literature makes it difficult to find and use a verified assessment tool that is designed to fit the social and emotional needs of gifted and talented students. There is no verification of the Goals and Work Habits Survey, although the Goals and Work Habits Survey is based on the verified Multidimensional Scale of Perfectionism designed by Dr. Randy Frost. The Goals and Work Habits Survey itself has never been statistically determined to be a valid and reliable assessment, so the data reported from this assessment must be analyzed with this consideration in mind.

The mono-operational bias of only using the unverified Goals and Work Habits Survey is a limitation to the accuracy and credibility of the study. Due to the small amount of studies pertaining to the perfectionistic tendencies of gifted and talented adolescents, Growth to Healthy Perfectionism is considered a pilot study and one of the first of its kind in the field, so beginning steps must be taken to add to the research in the field before concrete evidence may be shared. It is a hope that as more research is published, more verified assessment tools will become available for the use of data measurement in studies pertaining to perfectionist tendencies of gifted and talented adolescents.

A number of issues must also be discussed pertaining to measuring and reporting data. The first issue is instrumentation error. It is possible that participants could have underreported or over reported data while self-reporting to questions on the Likert Scale for the Goals and Work Habits Survey. Each participant may also have a different concept of strongly agreeing/disagreeing as indicated on the Likert Scale, so there is no real concrete and completely accurate way to gather measurement data when asking humans to self-report personal data. An attrition error is the absence of some participants throughout the course of the eight week

program. This resulted in missed instruction pertaining to certain dimensions, which means their self-reported data could have been skewed when answering questions on the post Goals and Work Habits Survey.

A maturation threat to the study is the lack of a control group within the study. There was no group to compare the growth of the group receiving intervention with. If the study were to be replicated, a control group should be included for comparison.

Suggestions for future research include replicating the study with a larger sample size in order to gather more data and find more significant increases/decreases in data which would contribute to more conclusive results. It may also be beneficial to conduct sessions closer together instead of once a week. A more compact timeline may create more continuity between sessions and increase connections, reflections, and real life applications of curriculum for participants, which could result in more significant decreases in unhealthy perfectionism. There were also some adjustments made to the lesson and presentation of the lessons after the primary researcher reflected on the delivery of the lesson. If this experiment were to be replicated, these changes to the lesson plans should be kept in mind while instructing participants.

Although the results of the present study do not exhibit significant findings in whole group improvement, significant improvements may be identified when analyzing select participant's individual scores. Many participants decreased in Concern Over Mistakes and Personal Standards. This may be attributed to the type of lesson that was taught pertaining to these two dimensions of perfectionism in which participants were typically even more involved with hands on learning and were able to make concrete and direct reflections and applications to their personal life regarding these two dimensions. At the conclusion of the Concern Over

Mistakes lesson, many participants stated that they were amazed that so many inventions were created by mistake and that this information made them feel more relaxed about making mistakes in their own personal lives.

Conclusion

The current study can best be described as a pilot study involving the creation and implementation of a school-based primary prevention program focused on educating gifted and talented adolescents about the unhealthy aspects of perfectionism and striving to provide these students with coping strategies and a support system to shift unhealthy perfectionistic tendencies to healthy ones. While significant and consistent results are unable to be documented, the study shows that students who participated in the Growth to Healthy Perfectionism unit are beginning to approach slightly lower post test scores in one of the six dispositions of perfectionism; Concern Over Mistakes. According to the student reflections and journals written throughout Growth to Healthy Perfectionism, unhealthy perfectionism is a trait many gifted and talented adolescents are struggling with, therefore there is a need for more research in the social/emotional realm of perfectionism for gifted and talented students. The current study should be replicated and expanded upon while keeping in the mind the following considerations, a larger sample size, consistent student attendance, and adjustments to content delivery in order to fit the needs of the learners.

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Table 1.

Descriptive Statistics

Composite	<u>Pre-Assessment</u>					<u>Post-Assessment</u>				
	<i>M</i>	<i>MED</i>	<i>SD</i>	<i>Z</i> (Skew.)	<i>Z</i> (Kur.)	<i>M</i>	<i>MED</i>	<i>SD</i>	<i>Z</i> (Skew.)	<i>Z</i> (Kur.)
PE	17.63	17.50	3.96	.278	-.892	16.64	16.00	4.30	-1.43	1.35
O	21.56	21.00	6.18	-1.55	1.25	21.45	23.00	6.28	-1.73	1.65
PC	9.88	9.50	4.06	1.37	1.10	9.55	8.00	3.01	1.22	-.51
PS	27.25	27.50	4.27	-.76	.30	25.82	27.00	4.09	-2.20*	1.97*
DA	13.19	12.50	3.17	.60	-.65	12.64	13.00	3.98	-.51	1.81
CM	28.38	29.00	9.00	-.37	.16	26.36	27.00	7.81	-1.22	1.38

Note: Parental Expectations “PE”; Organization “O”; Parental Criticism “PC”; Personal

Standards “PS”; Doubts about Actions “DA”; Concern over Mistakes “CM”; * signifies evidence of non-normality

Appendix A

IRB Approval Letter

TO: Sean Simons, Educational Studies Leadership and Counseling

FROM: Jonathan Baskin, IRB Coordinator

DATE: 12/13/2019

RE: Human Subjects Protocol I.D. – IRB # 20-100

The IRB has completed its review of your student's Level 1 protocol entitled *Growth to healthy perfectionism: An investigation with perfectionist tendencies with gifted and talented adolescent students*. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.

Your stated data collection period is from 12/4/2019 to 12/3/2020.

If data collection extends beyond this period, please submit an Amendment to an Approved Protocol form detailing the new data collection period and the reason for the change.

This Level 1 approval is valid until 12/12/2020.

If data collection and analysis extends beyond this date, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 12/12/2020. You must reapply for IRB approval by submitting a Project Update and

Closure form (available at murraystate.edu/irb). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.

Appendix B

Informed Consent Letter to Parents

Project Title: Growth to Healthy Perfectionism: An Investigation of Perfectionist Tendencies with Gifted and Talented Adolescents

Investigators: Phoebe Pohlman (Undergraduate Student) and Sean Simons, Ph.D. (Faculty Mentor)

Contact Information: Dr. Sean Simons, Murray State University, 270-809-2593, ssimons2@murraystate.edu

Your child is being asked to participate in a research study conducted through Murray State University. If you agree to allow your child to participate in this study, then you need to know several things. This letter describes the research project along with its procedures, benefits, and any possible risks for participating. You may email or call the faculty mentor if you have any questions to help you understand the intervention.

1. ***Nature and Purpose of the Project:*** The purpose of this study is to evaluate the effectiveness of a brief curriculum developed by the researchers that focuses on promoting healthy perfectionist tendencies and managing common struggles with children and adolescents who are gifted and talented. The outcome of the proposed study would provide valuable information for teachers, schools, and professionals seeking to assist gifted students.
2. ***Explanation of Procedures:*** The researchers will meet with participating students in a small group format once a week for approximately 45 minutes. Each lesson will include teacher-led and student-led activities along with group discussion. Activities will include goal-setting worksheets, short story vignettes, and small-group discussions. Participants will also be asked to report perfectionist tendencies on a short survey before and after the study.
3. ***Discomfort and Risks:*** There are no known discomforts or risks associated with this study.
4. ***Benefits:*** Participants will likely benefit from the enrichment activities that have been tailored specifically to this special population. Additionally, the information gleaned from this study will help educators better understand a commonly reported difficulty with gifted students and possible supports that can be used.
5. ***Confidentiality:*** All information will remain strictly confidential. We will not be writing down your name or any identifying information. All testing materials will remain in a file locked in a secure filing cabinet in the faculty mentor's office.
6. ***Refusal/Withdrawal:*** Your child's participation in this study is completely voluntary. There will be no penalty if you decide not to allow your child to participate or if you decide to withdraw your child from the study. You may withdraw your child from this study at any time. If you choose not to consent to your child participating in this study, then your child's daily school schedule will not be affected.

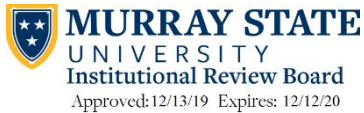
By signing below, I am agreeing to participate in the study as described above. I understand that my participation is voluntary and that I may quit participating at any time.

Child's Name

Parent's Signature

Date

THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY THE MURRAY STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD (IRB) FOR THE PROTECTION OF HUMAN SUBJECTS. ANY QUESTIONS PERTAINING TO YOUR RIGHTS AS A PARTICIPANT SHOULD BE BROUGHT TO THE ATTENTION OF THE IRB COORDINATOR AT 270-809-2916. ANY QUESTIONS ABOUT THE CONDUCT OF THIS RESEARCH PROJECT SHOULD BE BROUGHT TO THE ATTENTION OF: Dr. Sean Simons College of Education, Murray State University 3218 Alexander Hall Office: 270-809-2593 Email: ssimons2@murraystate.edu



Appendix C

(Including post test qualitative questions)

ID# _____

Goals and Work Habits Survey (Schuler, 1994)

Directions: This questionnaire asks questions about how you think about yourself, your goals, and work habits. Your answers will not be shown to anyone else. There are no right or wrong answers. Please be sure to answer ALL questions.

Information about you:

Please circle your answer for each question.

1. Which are you? Female Male Other
2. What is your age? 11 12 13 14 Other (please specify) _____
3. What grade are you in? 6th 7th 8th
4. Are you...? White Black Hispanic Asian Prefer not to say Other _____

Goals and Work Habits

Please circle the number that best corresponds with your agreement to each statement below.

Use the following rating system:

1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree

- | | SD | D | N | A | SA |
|--|----|---|---|---|----|
| 1. My parents set very high standards for me. | 1 | 2 | 3 | 4 | 5 |
| 2. Organization is very important to me. | 1 | 2 | 3 | 4 | 5 |
| 3. I have been punished for doing things less than perfectly. | 1 | 2 | 3 | 4 | 5 |
| 4. If I do not set the highest standards for myself, I am likely to end up a second rate person. | 1 | 2 | 3 | 4 | 5 |
| 5. My parents never try to understand my mistakes. | 1 | 2 | 3 | 4 | 5 |
| 6. It is important to me that I be thoroughly competent in everything I do. | 1 | 2 | 3 | 4 | 5 |

7. I am a neat person.	1	2	3	4	5
8. I try to be an organized person.	1	2	3	4	5
9. If I fail at work/school, I am a failure as a person.	1	2	3	4	5
10. I should be upset if I make a mistake.	1	2	3	4	5
11. My parents want me to be the best at everything.	1	2	3	4	5
12. I set higher goals than most people.	1	2	3	4	5
13. If someone at work/school does a task better than I, then I feel like I failed the whole task.	1	2	3	4	5
14. If I fail partly, it is as bad as being a complete failure.	1	2	3	4	5
15. Only outstanding performance is good enough in my family.	1	2	3	4	5
16. I am very good at focusing my efforts on attaining a goal.	1	2	3	4	5
17. Even when I do something very carefully, I often feel that it is not right.	1	2	3	4	5
18. I hate being less than best at things.	1	2	3	4	5
19. I have extremely high goals.	1	2	3	4	5
20. My parents expect excellence from me.	1	2	3	4	5
21. People will probably think less of me if I make a mistake.	1	2	3	4	5
22. I never feel like I can meet my parents' expectations.	1	2	3	4	5
23. If I do not do as well as other people, it means I am an inferior being.	1	2	3	4	5
24. Other people seem to accept lower standards for themselves than I do.	1	2	3	4	5

- | | | | | | |
|--|---|---|---|---|---|
| 25. If I do not do well all the time, people will not respect me. | 1 | 2 | 3 | 4 | 5 |
| 26. My parents have always had higher expectations than I have. | 1 | 2 | 3 | 4 | 5 |
| 27. I try to be a neat person. | 1 | 2 | 3 | 4 | 5 |
| 28. I usually have doubts about simple everyday things I do. | 1 | 2 | 3 | 4 | 5 |
| 29. Neatness is very important to me. | 1 | 2 | 3 | 4 | 5 |
| 30. I expect higher performance in my daily tasks than most people. | 1 | 2 | 3 | 4 | 5 |
| 31. I am an organized person. | 1 | 2 | 3 | 4 | 5 |
| 32. I tend to get behind in my work because I repeat things over and over. | 1 | 2 | 3 | 4 | 5 |
| 33. It takes me a long time to do something "right." | 1 | 2 | 3 | 4 | 5 |
| 34. The fewer mistakes I make, the more people will like me. | 1 | 2 | 3 | 4 | 5 |
| 35. I never feel like I can meet my parent's standards. | 1 | 2 | 3 | 4 | 5 |

Appendix D
Post Reflection Questions
Pohlman, 2019

1. Did you feel like you struggled with perfectionism before this unit began? (Circle one)

YES NO

2. If you circled YES to the above question, do you currently feel like you struggle with perfectionism? (Circle one) YES NO

3. How has your view of perfectionism changed after participating in this unit?

4. What is your biggest personal take away from the unit?

5. List at least two specific changes you would make to the unit and *why* you would make the changes.

6. List at least two specific things you enjoyed doing during the unit and *why* you enjoyed doing them.

Appendix E

Unit Overview

1. My unit strives to address the need for an affective curriculum for gifted students to understand their giftedness, and their predisposition to perfectionist tendencies, which can sometimes be unhealthy. According to Dr. Randy Frost there are six dimensions of perfectionism: Organization (O), Concern over Mistakes (CM), Parental Expectations (PE), Doubts about actions (D), Parental Criticism (PC), and Personal Standards (PS). My unit will address one aspect of perfectionism per lesson in hopes that students will decrease in unhealthy perfectionism and increase in healthy perfectionism.
2. The standards for the unit are taken from the National Association of Gifted Children website: <http://www.nagc.org/sites/default/files/standards/K-12%20programming%20standards.pdf>

Standard 4: Learning Environments:

Student Outcomes

- 4.1. Personal Competence. Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity, and risk-taking.
3. The National Association for Gifted Children lists the following as the gifted Educator's goals:

Evidence-Based Practices (The educator's role in helping students achieve the standard)

 - 4.1.1. Educators maintain high expectations for all students with gifts and talents as evidenced in meaningful and challenging activities.
 - 4.1.2. Educators provide opportunities for self-exploration, development and pursuit of interests, and development of identities supportive of achievement, e.g., through mentors and role models.
 - 4.1.3. Educators create environments that support trust among diverse learners.
 - 4.1.4. Educators provide feedback that focuses on effort, on evidence of potential to meet high standards, and on mistakes as learning opportunities.
 - 4.1.5. Educators provide examples of positive coping skills and opportunities to apply them.

Appendix F
Sample Lesson Plan with Resources

Concern Over Mistakes Lesson Plan

Name: Phoebe Pohlman Date of lesson: Ages/grades of students: Seventh/Eighth Number of students in class:		Lesson content: Number of gifted students: Number of students with IEP: with 504: Number of students who are ELL:
Lesson Title: Concern Over Mistakes		
Unit Title: Growth towards Healthy Perfectionism		
Lesson Sequence in Unit: 5/8		
Aligns with the following personal competencies and dispositions from Standard 4.1 Student Outcomes: Resilience, risk-taking, self-efficacy, confidence		
Standards	Objective(s)/Learning Target(s)	Assessments
Students who have been identified as gifted/talented demonstrate an understanding of the importance of making mistakes during the creation process.	Objective: Students will present their understanding of making mistakes during the creation process by presenting on an inventor/invention that was created by mistake. Learning Target: I will be able to present my understanding of the importance of making mistakes during the creation process by presenting on an inventor/invention that was created by mistake.	Students will work in groups to research and present on an inventor that experienced many mistakes before finding success, or an invention that was created by mistake.
Students who have been identified as gifted/talented are able to identify key characteristics needed to overcome making mistakes.	Objective: Students will be able to identify key characteristics needed to overcome making mistakes by contributing a key characteristic to the class Word Cloud. Learning Target: I can identify important characteristics needed to overcome making mistakes by contributing a key characteristic to the class Word Cloud.	Students will answer the question "What characteristics help you overcome making mistakes?" to create a class Word Cloud.
Technology/References/Resources		

<ul style="list-style-type: none"> ● Journal reflection “Mistakes” ● Silly Putty ● Post-it notes ● Bubble Wrap ● laptops/ipads/devices for student research ● Screen ● Mentimeter <ul style="list-style-type: none"> ○ How to use Mentimeter ● Pencil ● Things Invented By Mistake document (with sources) ● Reference: Reference: Klein, S.M. (2004) “Reaching New Heights: A Primary Prevention Program for Gifted Middle School Students.” Appendix B. 	
Students’ Baseline Knowledge and Skills <ul style="list-style-type: none"> ● Definition of mistake 	
Lesson Procedures	
Opening	
<p>Start today’s lesson with journal reflection. “How do you feel when you make a mistake? Why do you think you feel this way?”</p> <ul style="list-style-type: none"> ● Give students the opportunity to share their thoughts/feelings. <p>Pull the following items out of a brown paper bag: Silly Putty, Post-it notes, and Bubble Wrap.</p> <ul style="list-style-type: none"> ● “Do you think these items have anything in common?” <ul style="list-style-type: none"> ○ All were invented by mistake ● Share a brief overview of each item and how they were created by mistake. ● Talk about the qualities each story includes: <ul style="list-style-type: none"> ○ Bubble wrap: creativity in remarketing ○ Sticky Notes: belief in his weak adhesive ○ Silly-Putty: adapted to what the people wanted: entertainment ○ In general all stories contain aspects of perseverance, and not giving up <p>“How do you think some of these inventors felt during their creation process?”</p> <p>“How did the inventors have to react to each situation?”</p> <ul style="list-style-type: none"> ● Talk about trial and error. “When was a time you experienced trial and error when you were doing something?” 	
Middle	
<i>Instructional Delivery</i>	<i>Instructional Differentiation</i>
You get to find your own inventions that were mistakes!	

<p>You can work alone, or in pairs, or groups to use technology to find your own inventions that came about by mistake. Be ready to give a short summary to the class of what you found. Also be able to talk about what characteristics the inventors had to show during the invention process and beyond.</p> <ul style="list-style-type: none"> • Students have work time as the teacher circulates the room. • Students informally present their findings. Class will discuss each invention as necessary. 	
Closure	
<p>Class discussion questions:</p> <p>“Why do you think it may be important to know that these inventions were all made from mistakes?”</p> <p>“What can we learn from these inventors and inventions when it comes to making mistakes?”</p> <p>“How might you be able to use some of these stories in your daily life as you make mistakes?”</p> <p>Class will create a word cloud using “Mentimeter” to answer the question “What characteristics help you overcome making mistakes?”</p>	

Things invented by mistake:

The Slinky toy

Invented by mistake in 1943 by a mechanical engineer, Richard James. He was trying to invent springs that could keep fragile equipment steady while on boats at sea. He accidentally knocked some samples off a shelf and watched as one spring gracefully “walked” down the shelving. Him and his wife saw the accident as a happy mistake and immediately started to develop the slinkys into toys. It was hard to convince stores to carry the toy, but in 1945 Gimbel’s department store took a chance on the invention and the first 400 slinkys sold within minutes.

<https://www.toyhalloffame.org/toys/slinky>

Post-it notes

In 1974 Dr. Spencer Silver was a scientist trying to develop a stronger, more durable adhesive. Instead of developing a strong and durable adhesive, he created the exact opposite. His creation was overlooked by his colleagues for years until Art Fry expressed his frustration about how he needed bookmarks for his hymnal that would not fall out. The two men collaborated and put Spencer’s weak adhesive on small pieces of paper to create the Post-It note. It’s first name was

the “Press ‘n’ Peel,” but a rebranding in the 80’s of “Post-It” finally garnered the success the little reminders deserve.

https://www.post-it.com/3M/en_US/post-it/contact-us/about-us/

Silly Putty

During WWII engineer James Wright was trying to develop a substitute for synthetic rubber to use for boots. He decided to put boric acid in silicon oil and the stretchy, bouncy substance was born. The government did not want to buy his invention for helping the war effort, but a few years later a businessman, noticed how popular the peculiar substance was at a party and decided to market it as “Silly Putty.” The toy quickly became one of the 20th centuries most popular toys, and even has practical uses such as picking up lint and dirt. The Apollo 8 moon mission used Silly Putty to secure their tools secure in zero gravity.

<https://www.kidsdiscover.com/quick-reads/weird-science-the-accidental-invention-of-silly-putty/>

Bubble Wrap

Bubble wrap was originally invented in 1957 by Alfred W. Fielding and Marc Chavannes. The two men thought they could create a new type of wallpaper by laminating two sheets and putting air bubbles in between. The invention never caught on as home decor, so the men were forced to rethink their invention. They began to market it as greenhouse insulation, then later as packaging material. Using Bubble Wrap as packaging material helped companies cut cost and weight from shipping.

<https://sealedair.com/company/our-history>

How to Use Mentimeter:

- Google Mentimeter: (Create a free account before the lesson begins)
- Go to your projects and click on reset results.
- Click present. This provides a code for the students to enter to vote.
- Students:
- www.menti.com
 - Enter code at the top of screen
 - Enter up to three answers
 - Click submit
- Watch the word cloud form!

